



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105  
**DEC 14 2017**

Mr. Ravi Ramalingam, Chief  
Consumer Products and Air Quality Assessment Branch  
Air Quality Planning and Science Division  
California Air Resources Board  
P.O. Box 2815  
Sacramento, California 95812

Dear Mr. Ramalingam:

In the State of California, ten districts plus the California Air Resources Board (ARB) submitted annual monitoring network plans this past year in accordance with 40 CFR 58.10. The U.S. Environmental Protection Agency (EPA) received plans covering the 2016 calendar year from:

- Bay Area Air Quality Management District,
- Great Basin Unified Air Pollution Control District,
- Monterey Bay Unified Air Pollution Control District,
- North Coast Unified Air Pollution Control District,
- Sacramento Metropolitan Air Quality Management District,
- Santa Barbara County Air Pollution Control District,
- San Diego County Air Pollution Control District,
- San Joaquin Valley Air Pollution Control District,
- San Luis Obispo County Air Pollution Control District, and
- South Coast Air Quality Management District.

EPA has reviewed and approved all of the plans listed above. EPA has provided specific comments on the plans we received from California local agencies through separate letters, and have forward these to ARB. Please refer to these responses for additional comments pertinent to ARB's network. With this letter, EPA approves the discontinuation of lead monitoring at the Fresno-Garland site (AQS ID: 06-019-001) and the sampling waiver renewal request for 1:6 day sampling for five PM<sub>2.5</sub> sites: Colusa (AQS ID: 06-011-1002), Lakeport (AQS ID: 06-033-3001), Roseville (AQS ID: 06-061-0006), Redding (AQS ID: 06-089-0004), and Woodland (AQS ID: 06-113-1003). As noted in the seasonal ozone waiver approval EPA sent on March 29, 2017, an updated ozone season waiver request (including 2017 data) is required should you wish to continue seasonal monitoring after March 31, 2018.

We appreciate your efforts in preparing the *Annual Network Plan Covering Monitoring Operations in 25 California Air Districts, July 2017* ("plan"), submitted by ARB on August 15, 2017. We have reviewed the submitted document based on the requirements set forth under 40 CFR 58. Based on the information provided in the plan, EPA approves all portions of the network plan except those specifically identified

below. Please note that we cannot approve portions of the annual network plan for which the information in the plan is insufficient to judge whether the requirement has been met, or for which the information, as described, does not meet the requirements as specified in 40 CFR 58.10 and the associated appendices. EPA Region 9 also cannot approve portions of the plan for which the EPA Administrator has not delegated approval authority to the regional offices. Accordingly, the first enclosure (*A. Annual Monitoring Network Plan Items where EPA is Not Taking Action*) provides a listing of specific items of ARB's plan where EPA is not taking action. Some annual network plans submitted by local agencies included sites operated by ARB. Missing or deficient information for ARB sites in local agency plans was addressed in the approval letters for each local agency. For convenience, we are providing a synthesized list of these issues in *Enclosure B. Elements Related to ARB Sites in Local Agency Plans Where EPA is Not Taking Action*. The third enclosure (*C. Additional Items Requiring Attention*) is a listing of additional items in the plan that EPA wishes to bring to your agency's attention based on ARB's plan.

The fourth enclosure (*D. Annual Monitoring Network Plan Checklist*) is the checklist EPA used to review your plan for overall items that are required to be included in the annual network plan along with our assessment of whether the plan submitted by your agency addresses those requirements.

The first and third enclosures highlight a subset of the more extensive list of items reviewed in the fourth enclosure. All comments conveyed via this letter (and enclosures) should be addressed (through corrections within the plan, additional information being included, or discussion) in next year's annual monitoring network plan.

If you have any questions regarding this letter or the enclosed comments, please feel free to contact me at (415) 947-4134 or Dena Vallano at (415) 972-3134.

Sincerely,



Gwen Yoshimura, ~~Acting~~ Manager  
Air Quality Analysis Office

Enclosures:

- A. Annual Monitoring Network Plan Items where EPA is Not Taking Action
- B. Elements Related to ARB Sites in Local Agency Plans Where EPA is Not Taking Action
- C. Additional Items Requiring Attention
- D. Annual Monitoring Network Plan Checklist
- E. EPA Approval of the Discontinuation of Lead Monitoring at Fresno-Garland

cc (via email):      Gayle Sweigert, ARB  
                             Kenneth Stroud, ARB  
                             Michael Miguel, ARB  
                             Michael Werst, ARB

## A. Annual Monitoring Network Plan Items where EPA is Not Taking Action

We are not acting on the portions of annual network plans where either EPA Region 9 lacks the authority to approve specific items of the plan, or EPA has determined that a requirement is either not met or information in the plan is insufficient to judge whether the requirement has been met.

- EPA identified items in your agency's annual monitoring network plan where a requirement was not being met or information in the plan was insufficient to judge whether the requirement was being met based on 40 CFR 58.10 and the associated appendices. Therefore, we are not acting on the following items:

Item	Checklist Row	Issue
Sampling schedule PM <sub>2.5</sub>	26	Not meeting in one instance
Semi-annual PM <sub>2.5</sub> flow rate audits	28	Not meeting in one instance
Manual PM <sub>10</sub> collocation	30	Not meeting requirement
One-point QC checks (gaseous)	42	Not meeting in one instance; insufficient information to judge in some instances
Identification of sites comparable to the annual PM <sub>2.5</sub> NAAQS	21	Incorrect in some instances
PM <sub>2.5</sub> QA collocation	19	Insufficient information to judge
Documentation of review of changes to PM <sub>2.5</sub> network	15	Insufficient to judge
Basic monitoring objective	66	Incorrect in some instances
Distance from obstructions on roof	78	Not meeting in one instance
Distance from obstructions not on roof	79	Not meeting in some instances
Distance from trees	80	Not meeting in some instances
Sampling start date	72	Insufficient to judge in some instances
Traffic count	74	Insufficient to judge in some instances
Probe height	76	Insufficient to judge in one instance
Submit plan by July 1 <sup>st</sup>	1	Not meeting requirement

Additional information for each of these items may be found for the row listed in column 2, in the fourth enclosure (*D. Annual Monitoring Network Plan Checklist*).

## **B. Elements Related at ARB Sites in Local Agency Plans where EPA is Not Taking Action**

We are not acting on the portions of annual network plans where either EPA Region 9 lacks the authority to approve specific items of the plan, or EPA has determined that a requirement is either not met or information in the plan is insufficient to judge whether the requirement has been met.

- EPA identified items in the following annual monitoring network plan where a requirement was not being met or information in the plan was insufficient to judge whether the requirement was being met based on 40 CFR 58.10 and the associated appendices. Therefore, we are not acting on the following items:

Item	Checklist Row	Issue
Probe height	San Luis Obispo, 76	Not meeting in some instances
Identification of maximum concentration O <sub>3</sub> sites	San Joaquin Valley (SJV), 54	Insufficient information to judge in some instances
SPMs operating FRM/FEM/ARM monitors for >24 months are listed as comparable to NAAQS	SJV, 11	Insufficient information to judge in one instance
Distance from supporting structure	SJV, 77	Not meeting requirement
Distance from trees	SJV, 80	Not meeting requirement
Distance of monitor from nearest road	Santa Barbara, 73	Not meeting requirement
Groundcover	Santa Barbara, 75	Insufficient information to judge

In addition, the following comments were made in EPA's annual network plan approval letters for the following agencies:

### **San Luis Obispo County Air Pollution Control District:**

- [Item 67] The San Luis Obispo PM<sub>2.5</sub> monitor is listed as general/background in the site table, but as population exposure on p.16 and in Table 2. Please clarify or correct the site type to be consistent in next year's plan.

### **Sacramento Metropolitan Air Quality Management District:**

- [Item 53] As noted in the plan, Sacramento County recently exceeded the 250,000 AADT statistic. Thank you for continuing to work with EPA and CARB to determine the appropriate timeline associated with the 2<sup>nd</sup> near-roadway NO<sub>2</sub> monitor requirement.

### **San Joaquin Valley Air Pollution Control District:**

- [Item 31] Based on Oildale's 2015 PM<sub>10</sub> design concentration of 121 µg/m<sup>3</sup>, sampling frequency for PM<sub>10</sub> monitoring should shift from a 1:6 to a 1:3 operating schedule starting January 1, 2017. The plan notes that the Oildale continuous FEM PM<sub>10</sub> monitor has been suspended as of

8/28/2015 due to rooftop safety issues and will resume operation and replace the current manual FRM monitor once rooftop safety issues have been resolved.

- [Item 48] The Parlier site is operational and meeting this requirement. The replacement Arvin monitor is yet to be operational.

Since the PAMS replacement site in Arvin is yet to be approved and operational (Item 7), the Bakersfield-Muni site temporarily serves as one of the two RA40 sites until the Arvin NO<sub>2</sub> monitor is reestablished.

- [Items 56, 57, 58] Fresno CBSA 2017 estimated population is near 1 million (995, 975). Near-road NO<sub>2</sub>, PM<sub>2.5</sub> and CO monitoring will be required if/when the population >1 million. Fresno NO<sub>2</sub> monitoring is operational and Bakersfield is anticipated to be operational in 2018.
- [Item 75] Some site (i.e. Fresno-Garland, Fresno-Pacific) ground cover descriptions appear to describe the roof surfaces, not surrounding ground cover. Please correct in next year's plan, if applicable.
- [Item 83] Please confirm that any monitors using Pyrex are borosilicate glass in next year's plan. Our understanding is that Pyrex no longer exclusively uses borosilicate glass.

### C. Additional Items Requiring Attention

- [Item 4] Please coordinate with EPA on anticipated system modifications that were in progress when the plan was written. Note that EPA approval is needed for new FEMs that replace non-FEMs in 2017/2018 (e.g. Grass Valley, Yreka).
- [Item 15] In future plans, please also include language specifically addressing the requirement set forth in 40 CFR 58.10(c) (e.g., note that this applies to review of changes to a PM<sub>2.5</sub> network, including violating PM<sub>2.5</sub> monitors).
- [Item 17, 44] The plan includes population census estimates from 2010 in all minimum monitoring requirement tables (O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, and Pb). Please use the most recent available census estimates (e.g., 2017) in next year's plan.

The Santa Rosa MSA lists a 2016 Census Population Estimate of 503,070, which changes the number of required monitors for that MSA from 0 to 1.

- [Item 29] The plan includes population census estimates from 2010 in all minimum monitoring requirement tables (O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, and Pb). Please use the most recent available census estimates (e.g., 2017) in next year's plan.

The Santa Rosa MSA lists a 2016 Census Population Estimate of 503,070, which changes the number of required monitors for that MSA from 0-1, to 1-2.

Some information listed in Table 16 did not match what EPA found in AQS. It appears that the maximum concentration for Brawley (Imperial) is incorrect and the maximum concentration site for Ventura County should be Simi Valley instead of El Rio. Despite the differences, all MSAs addressed in the ANP continue to have enough monitors to meet the minimum number of required PM<sub>10</sub> monitors. Please ensure the appropriate information is reflected in future ANPs.

- [Item 43] Lancaster Division St shows a of date of "42404" (2/4/2016?) for NO<sub>2</sub> and O<sub>3</sub>. Please correct in next year's plan.
- [Item 45] Table 10 lists Vacaville-Ulatis Drive (Yolo-Solano) as high concentration site in the Vallejo-Fairfield MSA, but Table 4 and App A. lists this site as population exposure. Please clarify and check for consistency in next year's plan.
- [Item 65] The Yreka non-FEM PM<sub>2.5</sub> monitor (parameter code 88502) has "None" listed for parameter occurrence code. This instrument is not reporting to AQS. The plan states that data will be submitted to AQS, and monitor switched to FEM, after the parallel monitoring is completed in January 2018. Please update the POC in next year's plan.
- [Item 68] The following non-FEM PM<sub>2.5</sub> monitors have a parameter code of 88502 or 88501 and monitor type of SLAMS: Gridley Colusa-Sunrise, Yosemite-Village, Yuba City, Willows-Colusa, and Paradise Theater, Chester, Grass Valley, Truckee, Lincoln, Tahoe City, Colfax-City Hall, Quincy, Portola, Roseville, and Davis.

If required to meet App. D PM<sub>2.5</sub> continuous requirements, the monitors must be a SLAMS. If not being used to meet App. D, any non-FEM PM<sub>2.5</sub> should have a monitor type of "Other." Please clarify in next year's plan.

- [Item 73] Mojave National Preserve (06-071-1001) distance to road and traffic count are listed as "unknown." If possible, please provide an estimate for these items.
- [Item 75] Auburn-Atwood Road's groundcover is listed as a roof surface, not surrounding ground cover. Please correct in next year's plan, if applicable.
- [Item 83] Please verify whether the "glass" or "Pyrex" listed for Healdsburg-Municipal Airport, Red Bluff-Walnut Street, El Rio, Ojai, Piru, Simi Valley, Thousand Oaks, and Redding-Health Department monitors are referring to borosilicate glass. Our understanding is that Pyrex no longer exclusively uses borosilicate glass.

Blythe-Murphy O<sub>3</sub> monitor does not list a probe material. Please correct in next year's plan.

### **E. EPA Approval of the Discontinuation of Lead Monitoring at Fresno-Garland**

This enclosure provides the U.S. Environmental Protection Agency's (EPA's) review and approval for the ARB's discontinuation of lead (Pb) monitoring at the Fresno-Garland NCore site (AQS ID: 06-019-0011).

On August 18, 2017, ARB sent a letter to EPA with a description of this system modification request. CARB began monitoring for Pb at Fresno-Garland in 2012. The highest three-month rolling average measured from the start of monitoring through June 2017 was 0.01  $\mu\text{g}/\text{m}^3$ . As stated in the preamble to the revised monitoring rule (81 FR 17259), EPA anticipated that waiver requests for shutdown of Pb monitoring at urban NCore sites would be received based on three years of data showing design values well below the 2008 Pb National Ambient Air Quality Standards (NAAQS).

EPA approves the shutdown based on a case-by-case approval per 40 CFR 58.14(c). The discontinuance of Fresno-Garland Pb monitoring does not compromise data collection needed for implementation of the Pb NAAQS, and the requirements of Appendix D will continue to be met after this monitor is closed as Pb monitoring is no longer required at urban NCore sites. Please include your August 18, 2017 request letter and this response in your next network plan.



## D. ANNUAL MONITORING NETWORK PLAN CHECKLIST (Updated February 9, 2017)

Year: 2017

Agency: California Air Resources Board (ARB)

40 CFR 58.10(a)(1) requires that each Annual Network Plan (ANP) shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations.

40 CFR 58.10(a)(1) further directs that, "The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement." On this basis, review of the ANPs is based on the requirements listed in 58.10 along with those in Appendices A, C, D, and E.

EPA Region 9 will not take action to approve or disapprove any item for which Part 58 grants approval authority to the Administrator rather than the Regional Administrators, but we will do a check to see if the required information is included and correct. The items requiring approval by the Administrator are: PAMS, NCore, and Speciation (STN/CSN).

Please note that this checklist summarizes many of the requirements of 40 CFR Part 58, but does not substitute for those requirements, nor do its contents provide a binding determination of compliance with those requirements. The checklist is subject to revision in the future and we welcome comments on its contents and structure.

Key:

White	meets the requirement
Yellow	requirement is not met, or information is insufficient to make a determination. Action requested in next year's plan or outside the ANP process (items listed in Enclosure A).
Green	item requires attention in order to improve next year's plan (items listed in Enclosure B).

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
<b>GENERAL PLAN REQUIREMENTS</b>				
1. Submit plan by July 1 <sup>st</sup>	58.10 (a)(1)	Yes, cover letter	No	Plan submitted on August 15, 2017.
2. 30-day public comment / inspection period	58.10 (a)(1); 58.10 (c)	Yes, p. 3 and cover letter	Yes	
3. Statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E, where applicable	58.10 (a)(1)	Yes, p. 3	Yes	
4. Modifications to SLAMS network – case when we are not approving system modifications	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	Yes, pp. 48-49	Yes	Please coordinate with EPA on anticipated system modifications that were in progress when the plan was written. Note that EPA approval is needed for new FEMs that replace non-FEMs in 2017/2018 (e.g. Grass Valley, Yreka).
5. Modifications to SLAMS network – case when we are approving system modifications per 58.14	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	Yes, pp. 48-49	Yes	See approval letter (Enclosure E) for Fresno-Garland TSP-Pb monitor shutdown.  See Row 26 for EPA's response on ARB's PM <sub>2.5</sub> sampling frequency waiver renewal request.
6. Does plan include documentation (e.g., attached approval letter) for system modifications that have been approved since last ANP approval?		Yes, App. D	Yes	
7. Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal	58.10 (b)(5)	Yes, pp. 48-49	Yes	ARB is considering the following system modifications: <ul style="list-style-type: none"> <li>• Relocation of Ridgecrest monitoring station</li> <li>• Relocation of Placerville monitoring station</li> <li>• Relocation of Lincoln monitoring station</li> <li>• New PM<sub>2.5</sub> non-FEM monitor at Loyaltion</li> </ul> Please work with EPA to ensure that any such system modifications are performed appropriately.

<sup>1</sup> Unless otherwise noted.

<sup>2</sup> Response options: NA (Not Applicable), Yes, No, or Incomplete.

<sup>3</sup> Assuming the information is correct.

<sup>4</sup> Response options: NA (Not Applicable) – [reason], Yes, No, Insufficient to Judge, or Incorrect

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
8. Precision/Accuracy reports submitted to AQS	58.16 (a)	Yes, p. 47	Yes	States that audit results are submitted to AQS quarterly.
9. Annual data certification submitted	58.15	Yes, p. 47	Yes	Submitted on June 2, 2017
10. Statement that SPMs operating an FRM/FEM/ARM that meet Appendix E also meet either Appendix A or an approved alternative. Documentation for any Appendix A approved alternative should be included. <sup>5</sup>	58.11 (a)(2)	Yes, p. 41	Yes	
11. SPMs operating FRM/FEM/ARM monitors for over 24 months are listed as comparable to the NAAQS or the agency provided documentation that requirements from Appendices A, C, or E were not met. <sup>6</sup>	58.20 (c)	Yes, App. A	Yes	
12. For agencies that share monitoring responsibilities in an MSA/CSA: this agency meets full monitoring requirements or an agreement between the affected agencies and the EPA Regional Administrator is in place	App D 2(e)	Yes, p. 17	Yes	
<b>GENERAL PARTICULATE MONITORING REQUIREMENTS (PM<sub>10</sub>, PM<sub>2.5</sub>, Pb-TSP, Pb-PM<sub>10</sub>)</b>				
13. Designation of a primary monitor if there is more than one monitor for a pollutant at a site.	App. A 3.2.3	Yes, App. A	Yes	
14. Distance between QA collocated monitors. For low volume PM instruments (flow rate < 200 liters/minute) > 1 m. For high volume PM instruments (flow rate > 200 liters/minute) > 2m. [Note: waiver request or the date of previous waiver approval must be included if the distance deviates from requirement.]	App. A 3.2.3.4 (c) and 3.3.4.2 (c)	Yes, App. A	Yes	
<b>PM<sub>2.5</sub>-SPECIFIC MONITORING REQUIREMENTS</b>				

<sup>5</sup> Alternatives to the requirements of appendix A may be approved for an SPM site as part of the approval of the annual monitoring plan, or separately.

<sup>6</sup> This requirement only applies to monitors that are eligible for comparison to the NAAQS per 40 CFR §§58.11(e) and 58.30.

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
15. Document how states and local agencies provide for the review of changes to a PM <sub>2.5</sub> monitoring network that impact the location of a violating PM <sub>2.5</sub> monitor.	58.10 (c)	Yes, p. 17, 48	Insufficient to judge	In future plans, please also include language specifically addressing the requirement set forth in 40 CFR 58.10(c) (e.g., note that this applies to review of changes to a PM <sub>2.5</sub> network, including violating PM <sub>2.5</sub> monitors).
16. Identification of any PM <sub>2.5</sub> FEMs and/or ARMs not eligible to be compared to the NAAQS due to poor comparability to FRM(s) [Note 1: must include required data assessment.] [Note 2: Required SLAMS must monitor PM <sub>2.5</sub> with NAAQS-comparable monitor at the required sample frequency.]	58.10 (b)(13) 58.11 (e)	NA	NA	
17. Minimum # of monitoring sites for PM <sub>2.5</sub> [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMS are eligible to be counted towards meeting minimum monitoring requirements.]	App. D 4.7.1(a) and Table D-5	Yes, p. 34	Yes	The plan includes population census estimates from 2010 in all minimum monitoring requirement tables (O <sub>3</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , NO <sub>2</sub> , SO <sub>2</sub> , CO, and Pb). Please use the most recent available census estimates (e.g., 2017) in next year's plan.  The Santa Rosa MSA lists a 2016 Census Population Estimate of 503,070, which changes the number of required monitors for that MSA from 0 to 1.
18. Requirements for continuous PM <sub>2.5</sub> monitoring (number of monitors and collocation)	App. D 4.7.2	Yes, p. 35	Yes	
19. FRM/FEM/ARM PM <sub>2.5</sub> QA collocation	App. A 3.2.3	Yes, pp. 42-43	Insufficient to judge	Table 27 on page 42 includes a footnote that ARB is in the process of converting all 117 and 118 monitors to 143 and 145. The table shows compliance with the regulation, but it also reflects the projected conversion, not the current state of monitoring in CY2016. If the conversions are not completed by the next ANP, please include the CY2017 actual methods in addition to the intended configuration.
20. PM <sub>2.5</sub> Chemical Speciation requirements for official STN sites	App. D 4.7.4	Yes, p. 39	Yes	



ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
21. Identification of sites suitable and sites not suitable for comparison to the annual PM <sub>2.5</sub> NAAQS as described in Part 58.30	58.10 (b)(7)	Yes, p. 36, App. A	Incorrect, in some instances	The Red-Bluff-Walnut Street, Ukiah-Library, and Willis-Justice Center PM <sub>2.5</sub> monitors appear to be incorrectly characterized as not comparable to the annual PM <sub>2.5</sub> NAAQS in Appendix A.
22. Required PM <sub>2.5</sub> sites represent area-wide air quality	App. D 4.7.1(b)	Yes, p. 36, App. A	Yes	
23. For PM <sub>2.5</sub> , within each MSA, at least one site at neighborhood or larger scale in an area of expected maximum concentration	App. D 4.7.1(b)(1)	Yes, p. 34, App. A	Yes	
24. If additional SLAMS PM <sub>2.5</sub> is required, there is a site in an area of poor air quality	App. D 4.7.1(b)(3)	NA	NA	
25. States must have at least one PM <sub>2.5</sub> regional background and one PM <sub>2.5</sub> regional transport site.	App. D 4.7.3	Yes, p. 38	Yes	
26. Sampling schedule for PM <sub>2.5</sub> - applies to Year-round and seasonal sampling schedules (note: date of waiver approval must be included if the sampling season deviates from requirement)	58.10 (b)(4); 58.12(d); App. D 4.7	Yes, pp. 36-37, App. A, App. C	No, in one instance	Grass Valley did not meet the required every day sampling frequency for 2016. The plan states that Northern Sierra Unified AQMD plans to install a FEM BAM at the Grass Valley site by the end of August 2017, which would meet the sampling frequency requirement.
27. Frequency of flow rate verification for automated and manual PM <sub>2.5</sub> monitors	App. A 3.2.1	Yes, p. 46 and App. A	Yes	On August 15, 2017 ARB submitted a sampling waiver renewal request for five PM <sub>2.5</sub> sites (Colusa (06-011-1002), Lakeport (06-033-3001), Roseville (06-061-0006), Redding (06-089-0004), and Woodland (06-113-1003). EPA approves this waiver request for all sites.
28. Dates of two semi-annual flow rate audits conducted in CY2016 for PM <sub>2.5</sub> monitors [Note: 5 - 7 month interval is recommended but not a requirement.]	App. A 3.2.2	Yes, App. A	No, in one instance	Calexico Ethel POC 3 has only one semi-annual flow rate audit date in 2016.

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
-----------------	--	--	---	-------

**PM<sub>10</sub>-SPECIFIC MONITORING REQUIREMENTS**

29. Minimum # of monitoring sites for PM <sub>10</sub> [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App. D, 4.6 (a) and Table D-4	Yes, pp. 29-30	Yes	The plan includes population census estimates from 2010 in all minimum monitoring requirement tables (O <sub>3</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , NO <sub>2</sub> , SO <sub>2</sub> , CO, and Pb). Please use the most recent available census estimates (e.g., 2017) in next year's plan.
30. Manual PM <sub>10</sub> method collocation (note: continuous PM <sub>10</sub> does not have this requirement)	App. A 3.3.4	Yes, p. 43	Not meeting requirement	The Santa Rosa MSA lists a 2016 Census Population Estimate of 503,070, which changes the number of required monitors for that MSA from 0-1, to 1-2.  Some information listed in Table 16 did not match what EPA found in AQS. It appears that the maximum concentration for Brawley (Imperial) is incorrect and the maximum concentration site for Ventura County should be Simi Valley instead of El Rio. Despite the differences, all MSAs addressed in the ANP continue to have enough monitors to meet the minimum number of required PM <sub>10</sub> monitors. Please ensure the appropriate information is reflected in future ANPs.
31. Sampling schedule for PM <sub>10</sub>	58.10 (b)(4); 58.12(e); App. D 4.6	Yes, p. 32	Yes	The CY2016 network is not meeting this requirement. The plan states that as of June 2017, the number of Primary FRM monitors is 29, reducing the required number of collocated monitors from five to four.  Note: Colusa-Sunrise PM <sub>10</sub> POC 2 is missing from table 17.
32. Frequency of flow rate verification for automated and manual PM <sub>10</sub> monitors	App. A 3.3.1 and 3.3.2	Yes, p. 46 and App. A	Yes	
33. Dates of two semi-annual flow rate audits conducted in CY2016 for PM <sub>10</sub> monitors [Note: 5 - 7 month interval is recommended but not a requirement.]	App. A 3.3.3	Yes, App. A	Yes	

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
<b>Pb-SPECIFIC MONITORING REQUIREMENTS</b>				
34. Minimum # of monitors for non-NCORE Pb [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.5	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
35. Pb collocation: for non-NCORE sites	App A 3.4.4 and 3.4.5	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
36. Any source-oriented Pb site for which a waiver has been granted by EPA Regional Administrator	58.10 (b)(10)	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
37. Any Pb monitor for which a waiver has been requested or granted by EPA Regional Administrator for use of Pb-PM <sub>10</sub> in lieu of Pb-TSP	58.10 (b)(11)	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
38. Designation of any Pb monitors as either source-oriented or non-source-oriented	58.10 (b)(9)	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
39. Sampling schedule for Pb	58.10 (b)(4); 58.12(b); App A 3.4.4.2 (c) and 3.4.5.3 (c)	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
40. Frequency of flow rate verification for Pb monitors audit	App A 3.4.1 and 3.4.2	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).
41. Dates of two semi-annual flow rate audits conducted in CY2016 for Pb monitors [Note: 5 - 7 month interval is recommended but not a requirement.]	App A 3.4.3	NA, p. 28	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed (pg 28).



ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
-----------------	--	--	---	-------

**GENERAL GASEOUS MONITORING REQUIREMENTS**

42. Frequency of one-point QC check (gaseous)	App. A 3.1.1	Yes, App. A	Not meeting requirement; Insufficient to judge in some instances	The requirement is for one-point QC checks to be performed at least once every two weeks. The following sites are not meeting this requirement or provided insufficient information to judge whether they met this requirement or not: <ul style="list-style-type: none"> <li>Sonora-Barretta Street O<sub>3</sub> (monthly)</li> <li>Blythe-Murphy Street O<sub>3</sub> (blank)</li> </ul> Additionally, information was provided as "unknown" for Joshua Tree NP-Pinto Wells and Mojave National Preserve. Please include this information in future plans if available.
43. Date of Annual Performance Evaluation (gaseous) conducted in CY2016	App. A 3.1.2	Yes, App. A	Yes	Lancaster Division St shows a of date of "42404" (2/4/2016?) for NO <sub>2</sub> and O <sub>3</sub> . Please correct in next year's plan.

**O<sub>3</sub> - SPECIFIC MONITORING REQUIREMENTS**

44. Minimum # of monitoring sites for O <sub>3</sub> [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.] [Note 3: monitors that do not meet traffic count/distance requirements to be neighborhood or urban scale (40 CFR Appendix E, Table E-1) cannot be counted towards meeting minimum monitoring requirements]	App D 4.1(a) and Table D-2	Yes, pp. 21-22, Table 10	Yes	The plan includes population census estimates from 2010 in all minimum monitoring requirement tables (O <sub>3</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , NO <sub>2</sub> , SO <sub>2</sub> , CO, and Pb). Please use the most recent available census estimates (e.g., 2017) in next year's plan.
45. Identification of maximum concentration O <sub>3</sub> site(s)	App D 4.1 (b)	Yes, pp. 21-22	Yes	The Santa Rosa MSA lists a 2016 Census Population Estimate of 503,070, which may affect minimum monitoring requirements in upcoming plans.
				Table 10 lists Vacaville-Ulatis Drive (Yolo-Solano) as high concentration site in the Vallejo-Fairfield MSA, but Table 4 and App A. lists this site as population exposure. Please clarify and check for consistency in next year's plan.



ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
46. Sampling season for O <sub>3</sub> (Note: Waivers must be renewed annually. EPA expects agencies to submit re-evaluations of the relevant data each year with the ANP. EPA will then respond as part of the ANP response.)	58.10 (b)(4); App D 4.1(i)	Yes, p. 23 and App. A, App. B	Yes	As mentioned in the April 26, 2017 waiver approval letter, please note that an updated waiver request, including 2017 data, will be required for future ozone season waiver approvals after March 31, 2018.

#### NO<sub>2</sub> SPECIFIC MONITORING REQUIREMENTS

47. Minimum monitoring requirements for area-wide NO <sub>2</sub> monitor in location of expected highest NO <sub>2</sub> concentrations representing neighborhood or larger scale (operation required by 1/1/13)	App D 4.3.3	NA, p. 24	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed.
48. Minimum monitoring requirements for susceptible and vulnerable populations monitoring (aka RA40) NO <sub>2</sub> (operation required by January 1, 2013)	App D 4.3.4	NA, p. 25	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed.
49. Identification of required NO <sub>2</sub> monitors as either near-road, area-wide, or vulnerable and susceptible population (aka RA40)	58.10 (b)(12)	NA, pp. 24-25	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed.

#### NEAR ROADWAY – SPECIFIC MONITORING REQUIREMENTS

In CBSAs ≥ 2.5 million, the following near-roadway minimum monitoring requirements apply:				
50. Two NO <sub>2</sub> monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	NA, pp. 24-25	NA	None required for the districts/areas covered in detail by the ARB ANP.
51. One CO monitor	App. D 4.2.1(a); 58.13(e)(2)	NA, p. 26	NA	None required for the districts/areas covered in detail by the ARB ANP.
52. One PM <sub>2.5</sub> monitor	App. D 4.7.1(b)(2); 58.13(f)(2)	NA, p. 33	NA	None required for the districts/areas covered in detail by the ARB ANP.
In CBSAs ≥ 1 million and AADT ≥ 250K, the following near-roadway minimum monitoring requirements apply:				
53. Two NO <sub>2</sub> monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	NA, pp. 24-25	NA	None required for the districts/areas covered in detail by the ARB ANP.
54. One CO monitor (by 1/1/2017)	App. D 4.2.1(a); 58.13(e)(2)	NA, p. 26	NA	None required for the districts/areas covered in detail by the ARB ANP.

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
55. One PM <sub>2.5</sub> monitor (by 1/1/2017)	App. D 4.7.1(b)(2); 58.13(f)(2)	NA, p. 33	NA	None required for the districts/areas covered in detail by the ARB ANP.
In CBSAs ≥ 1 million and ≤ 2.5 million AND AADT < 250K, the following near-roadway minimum monitoring requirements apply:				
56. One NO <sub>2</sub> monitors	App. D 4.3.2(a); 58.13(c)(3)	NA, pp. 24-25	NA	None required for the districts/areas covered in detail by the ARB ANP.
57. One CO monitor (by 1/1/2017)	App. D 4.2.1(a); 58.13(e)(2)	NA, p. 26	NA	None required for the districts/areas covered in detail by the ARB ANP.
58. One PM <sub>2.5</sub> monitor (by 1/1/2017)	App. D 4.7.1(b)(2); 58.13(f)(2)	NA, p. 33	NA	None required for the districts/areas covered in detail by the ARB ANP.

#### SO<sub>2</sub> - SPECIFIC MONITORING REQUIREMENTS

59. Minimum monitoring requirements for SO <sub>2</sub> based on PWEI and/or RA required monitors under Appendix D 4.4.3 [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.4	NA, p. 27	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed.
60. Monitors used to meet Data Requirements Rule (operational no later than January 1, 2017.)	51.1203(c)	NA, p. 27	NA	None required for the districts/areas covered in detail by the ARB ANP. General requirements discussed.

#### NCORE - SPECIFIC MONITORING REQUIREMENTS

61. NCORE site and all required parameters operational: year-round O <sub>3</sub> , SO <sub>2</sub> , CO, NO <sub>x</sub> , NO, PM <sub>2.5</sub> mass, PM <sub>2.5</sub> continuous, PM <sub>2.5</sub> speciation, PM <sub>10-2.5</sub> mass, resultant wind speed at 10m, resultant wind direction at 10m, ambient temperature, relative humidity, NO <sub>y</sub> waiver, if applicable.	App. D 3(b)	NA, p. 40	NA	None required for the districts/areas covered in detail by the ARB ANP.
---	-------------	-----------	----	---

#### SITE OR MONITOR - SPECIFIC REQUIREMENTS (OFTEN INCLUDED IN DETAILED SITE INFORMATION TABLES)

62. AQS site identification number for each site	58.10 (b)(1)	Yes, App. A	Yes	
63. Location of each site: street address and geographic coordinates	58.10 (b)(2)	Yes, App. A	Yes	
64. MSA, CBSA, CSA or other area represented by the monitor	58.10 (b)(8)	Yes, App. A	Yes	

ANP requirement		Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
65.	Parameter occurrence code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Yes, App. A	Yes	The Yreka non-FEM PM <sub>2.5</sub> monitor (parameter code 88502) has "None" listed for parameter occurrence code. This instrument is not reporting to AQS. The plan states that data will be submitted to AQS, and monitor switched to FEM, after the parallel monitoring is completed in January 2018. Please update the POC in next year's plan.
66.	Basic monitoring objective for each monitor	App D 1.1.1; 58.10 (b)(6)	Yes, App. A	Incorrect in some instances	PM <sub>2.5</sub> monitors reporting under parameter codes 88501 and 88502 are not eligible for comparison to the NAAQS. "NAAQS" should be removed as a monitor objective for these monitors at the following monitors: Colusa-Sunrise POC 3, Quincy POC 3, Chester POC 3, Truckee-Fire Station POC 3, and Grass Valley POC 3.  Yreka PM <sub>2.5</sub> non-FEM monitor is listed as "Other". Please clarify in next year's plan.
67.	Site type for each monitor	App D 1.1.1	Yes, pp. 11-12 and App. A		Yes
68.	Monitor type for each monitor, and Network Affiliation(s) as appropriate	Needed to determine if other requirements (e.g., min # and collocation) are met	Yes, pp. 13-14 and App. A	Insufficient to judge in some instances	The following non-FEM PM <sub>2.5</sub> monitors have a parameter code of 88502 or 88501 and monitor type of SLAMS: Gridley Colusa-Sunrise, Yosemite-Village, Yuba City, Willows-Colusa, and Paradise Theater, Chester, Grass Valley, Truckee, Lincoln, Tahoe City, Colfax-City Hall, Quincy, Portola, Roseville, and Davis.  If required to meet App. D PM <sub>2.5</sub> continuous requirements, the monitors must be a SLAMS. If not being used to meet App. D, any non-FEM PM <sub>2.5</sub> should have a monitor type of "Other." Please clarify in next year's plan.



ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
69. Scale of representativeness for each monitor as defined in Appendix D	58.10(b)(6); App D	Yes, pp. 11-12 and App. A	Yes	
70. Parameter code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Yes, App. A	Yes	See Item 68.
71. Method code and description (e.g., manufacturer & model) for each monitor	58.10 (b)(3); App C 2.4.1.2	Yes, App. A	Yes	For the Lassen Volcanic NP O <sub>3</sub> monitor, should the method code be 47 instead of 87?
72. Sampling start date for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Yes, App. A	Insufficient to judge in some instances	Please provide a specific start date for the second PM <sub>2.5</sub> monitor at Yreka.  Red-Bluff - Walnut Street PM <sub>10</sub> and PM <sub>2.5</sub> monitors appear to show typos for dates. Please correct in next year's plan.
73. Distance of monitor from nearest road	App E 6	Yes, App. A	Yes	Mojave National Preserve (06-071-1001) distance to road and traffic count are listed as "unknown." If possible, please provide an estimate for these items.
74. Traffic count of nearest road	App E	Yes, App. A	Insufficient to judge in some instances	Please indicate traffic count years and include most recent available year data when applicable (e.g., Ridgecrest-California is 2007). If no update is available, please state this in next year's plan.  Mojave National Preserve distance to road and traffic count are listed as "unknown." If possible, please provide an estimate for these items.  Lassen Volcanic National Park AADT was provided as "Hwy 89 terminal segment." If possible, please provide a general estimate of the AADT for this road.

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
75. Groundcover	App E 3(a)	Yes, App. A	Incorrect in one instance	Auburn-Airwood Road's groundcover is listed as a roof surface, not surrounding ground cover. Please correct in next year's plan, if applicable.
76. Probe height	App E 2	Yes, App. A	Insufficient to judge in one instance	Blythe-Murphy O <sub>3</sub> monitor does not list a probe height. Please clarify in next year's plan.
77. Distance from supporting structure (vertical and horizontal, if applicable, should be provided)	App E 2	Yes, App. A	Yes	
78. Distance from obstructions on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(b)	Yes, App. A	Not meeting requirement in one instance	40 CFR 58 Appendix E indicates that the distance to any obstruction must be at least twice the height of the obstruction above the probe.
79. Distance from obstructions not on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(a)	Yes, App. A	Not meeting requirement in some instances	Shasta Lake-Lake Blvd O <sub>3</sub> monitor does not meet this requirement for obstructions on the roof. 40 CFR 58 Appendix E indicates that the distance to any obstruction must be at least twice the height of the obstruction above the probe.
80. Distance from the drip line of closest tree(s)	App E 5	Yes, App. A	Not meeting requirement in some instances	The following monitors do not meet this requirement for obstructions not on the roof: <ul style="list-style-type: none"> <li>• Calexico-Ethel Street PM<sub>10</sub> POC 1 monitor</li> <li>• Lassen Volcanic NP O<sub>3</sub> monitor</li> <li>• Shasta Lake-Lake Blvd O<sub>3</sub> monitor</li> </ul> 40 CFR 58 Appendix E states that the probe, inlet, or at least 90 percent of the monitoring path must be at least 10 meters or further from the drip line of trees.
81. Distance to furnace or incinerator flue	App E 3(b)	Yes, App. A	Yes	The following monitors do not meet this requirement: <ul style="list-style-type: none"> <li>• Ridgecrest PM<sub>10</sub> and PM<sub>2.5</sub></li> <li>• Calexico Ethel Street – all monitors</li> <li>• Middletown-Anderson Springs Road PM<sub>10</sub></li> <li>• Glenbrook PM<sub>10</sub></li> <li>• Yosemite Village-Visitor Center PM<sub>10</sub> and PM<sub>2.5</sub></li> <li>• Lassen Volcanic NP O<sub>3</sub></li> </ul>

ANP requirement	Citation within 40 CFR 58 <sup>1</sup>	Was the information submitted? <sup>2</sup> If yes, page #s.	Does the information provided <sup>3</sup> meet the requirement? <sup>4</sup>	Notes
82. Unrestricted airflow (expressed as degrees around probe/inlet or percentage of monitoring path)	App E, 4(a) and 4(b)	Yes, App. A	Yes	
83. Probe material (NO/NO <sub>2</sub> /NO <sub>x</sub> , SO <sub>2</sub> , O <sub>3</sub> ; For PAMS: VOCs, Carbonyls)	App E 9	Yes, App. A	Insufficient to judge in some instances	Please verify whether the "glass" or "Pyrex" listed for Healdsburg-Municipal Airport, Red Bluff-Walnut Street, El Rio, Ojai, Piru, Simi Valley, Thousand Oaks, and Redding-Health Department monitors are referring to borosilicate glass. Our understanding is that Pyrex no longer exclusively uses borosilicate glass.  Blythe-Murphy O <sub>3</sub> monitor does not list a probe material. Please clarify in next year's plan.
84. Residence time (NO/NO <sub>2</sub> /NO <sub>x</sub> , SO <sub>2</sub> , O <sub>3</sub> ; For PAMS: VOCs, Carbonyls)	App E 9	Yes, App. A	Yes	

### Public Comments on Annual Network Plan

Were comments submitted to the S/L/T agency during the public comment period?	Yes. Appendix E.
Were comments included in ANP submittal?	Yes.
Were any of the comments substantive? If yes, which ones? If comments were not substantive provide rationale.	No, the comment noted a minor language clarification and the draft plan was revised and corrected prior to final submission to U.S. EPA.
Were S/L/T responses to substantive comments included in ANP submittal?	NA
Were the S/L/T responses to substantive comments adequate?	NA
Do the substantive comments require separate EPA response (i.e., agency response wasn't adequate)?	NA
Are the sections of the annual network plan that received substantive comments approvable after consideration of comments? If yes, provide rationale	NA